

SHSD Job Risk Assessment

Job Number: SHSD-JRA-04 Job Title: Perchlorate Sampling and Lab Analysis	Point Value → Parameter ↓	1	2	3	4	5
Job Description: Taking sampling in the field for Perchloric Acid and Perchlorates contamination on ventilation equipment and conducting analysis in the IH lab	Frequency (B)	≤once/ year	≤once/ month	≤once/ week	≤once/ shift	>once /shift
Name(s) of Risk Team Members: F. Horn; R. Wilson; R. Selvey (02/22/06)	Severity (C)	First Aid Only	Medical Treatment	Lost Time	Partial Disability	Death or Permanent Disability
Training Procedures List (Optional): IH SOP Qualification JTA-75C Applicable Standard Operating Procedure: IH75200 Approved by: R. Selvey Date: 02/24/06 Rev. #:0	Likelihood (D)	Very Unlikely	Unlikely	Possible	Probable	Multiple
Stressors (if applicable, please list all)		Reason for Revision (if applicable):			Comments:	

		Without Controls						Before Additional Controls							After Additional Controls						
Job Step / Task	Hazard(s)	# of People A	Frequency B	Severity C	Likelihood D	Risk* AxBxCxD	Control(s)	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Risk* AxBxCxD	Control(s) Added to Reduce Risk	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Risk* AxBxCxD	% Risk Reduction
Initial Assessment by SME at location- visual inspection of area of concern	exposure to contaminated surface hazards of the area	1	2	2	1	4	PPE for surface and air contaminants, RWP; interview with area occupants for historical information.	N	1	2	1	1	2								
Preparing Equipment & media	falling objects from IH equipment storage shelves, ergo strain, pinch, abrade of sharp edges	1	2	2	2	8	storage of heavy equipment on low shelves, stools, ergo training, toe boards on shelves	N	1	2	2	1	4								
Loading Equipment into and out of vehicles on going and coming trips	ergo strains, strains, slips/trips	1	2	2	2	8	light weight of equipment used in field sampling	N	1	2	2	2	8								

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Job Step / Task	Hazard(s)	# of People A	Frequency B	Severity C	Likelihood D	Risk* AxBxCxD	Control(s)	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Risk* AxBxCxD	Control(s) Added to Reduce Risk	Stressors Y/N	# of People A	Frequency B	Severity C	Likelihood D	Risk* AxBxCxD	% Risk Reduction
Travel to and from site	see site JRA for vehicular travel	-	-	-	-	-	---	-	-	-	-	-	-								
Setting up and taking surface wipe samples	ergo strains, strains, slips/trips, awkward positions	1	2	2	3	12	light weight of equipment, sample rod extensions, step stools/ladder	N	1	2	2	2	8								
	exposure to site hazards such as chemicals and ionizing radiation	1	2	2	2	8	PPE for surface and air contaminants, follow Work Control Procedures and Radiological Work Permits in the area	N	1	2	2	1	4								
	falls on access to sampling points	1	2	3	3	18	ladder safety; select safe sample location	N	1	2	3	2	12								
	Perchlorate explosion hazard	2	2	5	4	80	extension probes, ballistic gear, hood sashes, visual inspection for crystals, possible use of fiber optic scope, empty hood of flammables	N	2	2	5	2	40								
Set up of lab analysis equipment	cut from glassware	1	2	2	2	8	disposable gloves	N	1	2	2	2	8								
Mixing, diluting standards and samples	Danger of Perchloric acid, toxic inhalation and skin contact to AMS	2	2	5	3	60	water soaked rag in Perchloric Acid storage jar; inspection for crystals, reduction in amount of AMS weighted, lab hood for mixing and diluting operations; measuring tools such as spatulas, crystalline form of AMS used, gloves	N	2	2	5	1	20								
Measurement of Perchlorate level with meter	cut by glassware; skin contact to AMS & Perchloric acid and Perchlorates	1	2	2	2	8	disposable gloves	N	1	2	2	2	8								
Clean up of glassware	cut by glassware; skin contact with detergent	1	2	2	2	8	disposable and reusable gloves, auto-pipette washer, broken glass container	N	1	2	2	1	4								

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Further Description of Controls Added to Reduce Risk:

- Add ladder safety training to JTA-75C. Status: Closed on 2/24/06.
- Consider obtaining more advanced fiber optic equipment with longer reach and more range of view as funds become available. Status: open thru FY06 due to budget restraints.

Risk:	0 to 20	21- 40	41- 60	61 - 80	81 or greater
	Negligible	Acceptable	Moderate	Substantial	Intolerable